



# DTX

An Open Standard for Small Form Factors

# Table of Contents

Market Needs

DTX Defined

Boards and Chassis

Motherboards

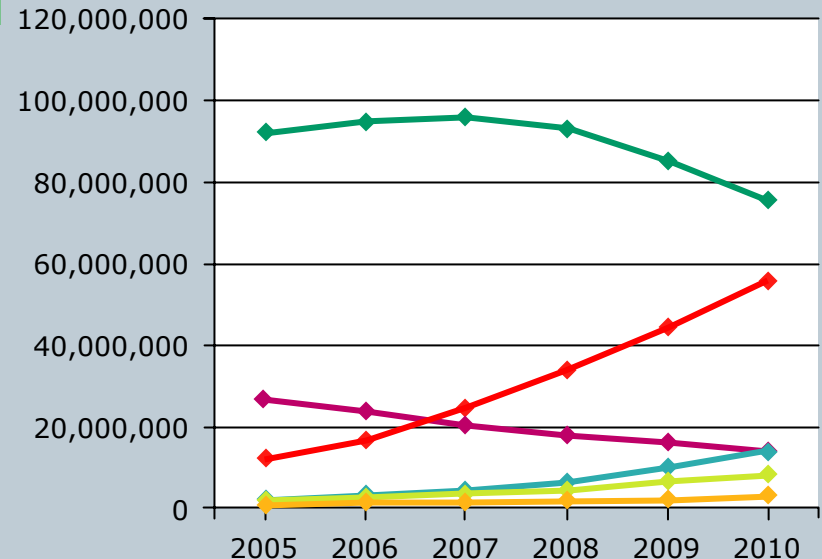


# Small Form Factor Desktop Standard

## Market Needs

- While the PC industry has been well served by the ATX standard, the ATX chassis can be too large (and loud)
- A small form factor (SFF) desktop standard can leverage the benefits of the ATX market including low costs, availability and features
- AMD believes that continued growth in the small form factor market can be accelerated with a mechanical interoperability standard

**Total Desktop Market by Form Factor\***



◆ Mini-tower  
◆ Tower  
◆ Small Form Factor  
◆ Ultra small Form Factor  
◆ All in One  
◆ Other Desktops



\* Source IDC 2005

# Small Form Factor Desktop Benefits

## Market Needs

### For consumers

- Electricity cost savings
- Take up less space for both practical and aesthetic purposes
- Enables systems that are quiet and do not generate excessive heat



### For enterprise clients

- Lower energy bills to help reduce operating costs
- Enables differentiated and competitive solutions
- Smaller, sleeker form factors take up less space in offices and cubicles and are designed to operate quietly



# DTX Defined

*On January 10, 2007, AMD announced DTX, an open standard specification that will be driven by AMD to help enable the development of small form factor (SFF) desktop systems.*

- **Open Industry Standard**

- DTX will be defined by AMD, but open to all, supporting AMD64 processors, as well as competitive solutions

- **ATX-like cost structure**

- 4-layer motherboard that can be backward-compatible with ATX chassis and can support mini-ITX

- **Flexibility**

- The specification will only define the mechanical aspects of the PC necessary for interoperability
- Having only mechanical requirements leaves adopters free to differentiate themselves through innovation

- **DTX website**

- Plan to provide specifications with reasonable and non-discriminatory licensing terms and conditions
- Plan to provide motherboard specification, and chassis and PSU information



ATX

DTX

*\*Concept illustrations only*

**The Box for Energy Efficient Desktops**

## **DTX-compliant motherboards will be designed to be compatible with ATX chassis**

- Smaller board size planned to allow up to four boards per standard manufacturing panel size
  - Allows motherboard vendors to sell a lower cost motherboard into either ATX or DTX infrastructure

## **DTX-compliant chassis will be able to use mini-ITX motherboards**

- Standard chassis for small systems
  - Will be designed to allow chassis vendors to sell products supporting both DTX and ITX

## **Small, but not too small**

- DTX offers benefits of the ATX market (cost, availability, options)
  - Appealing and small forms
  - Two expansion slots (PCI or PCIe) plus one XpressCard slot planned
  - Will be designed for lower wattage CPUs – defined for up to 65w TDP

## **Low acoustic noise will be fundamental to the definition**

***A review copy of the DTX specifications will be available by AMD in Q1 2007***

**It Starts with a Flexible Specification**

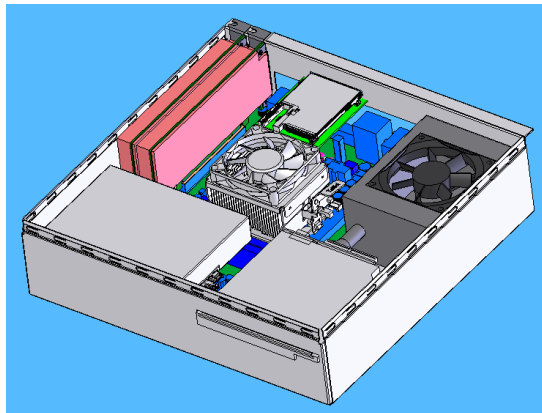
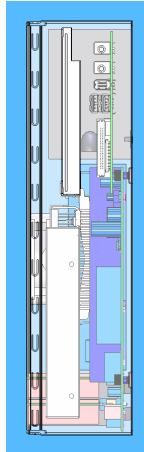


## Chassis Designs and Motherboards

**Feel Free to Innovate**

## OEMs, Box and Board

Currently, AMD believes the only requirement for DTX on chassis design is motherboard mounting points and keep-outs



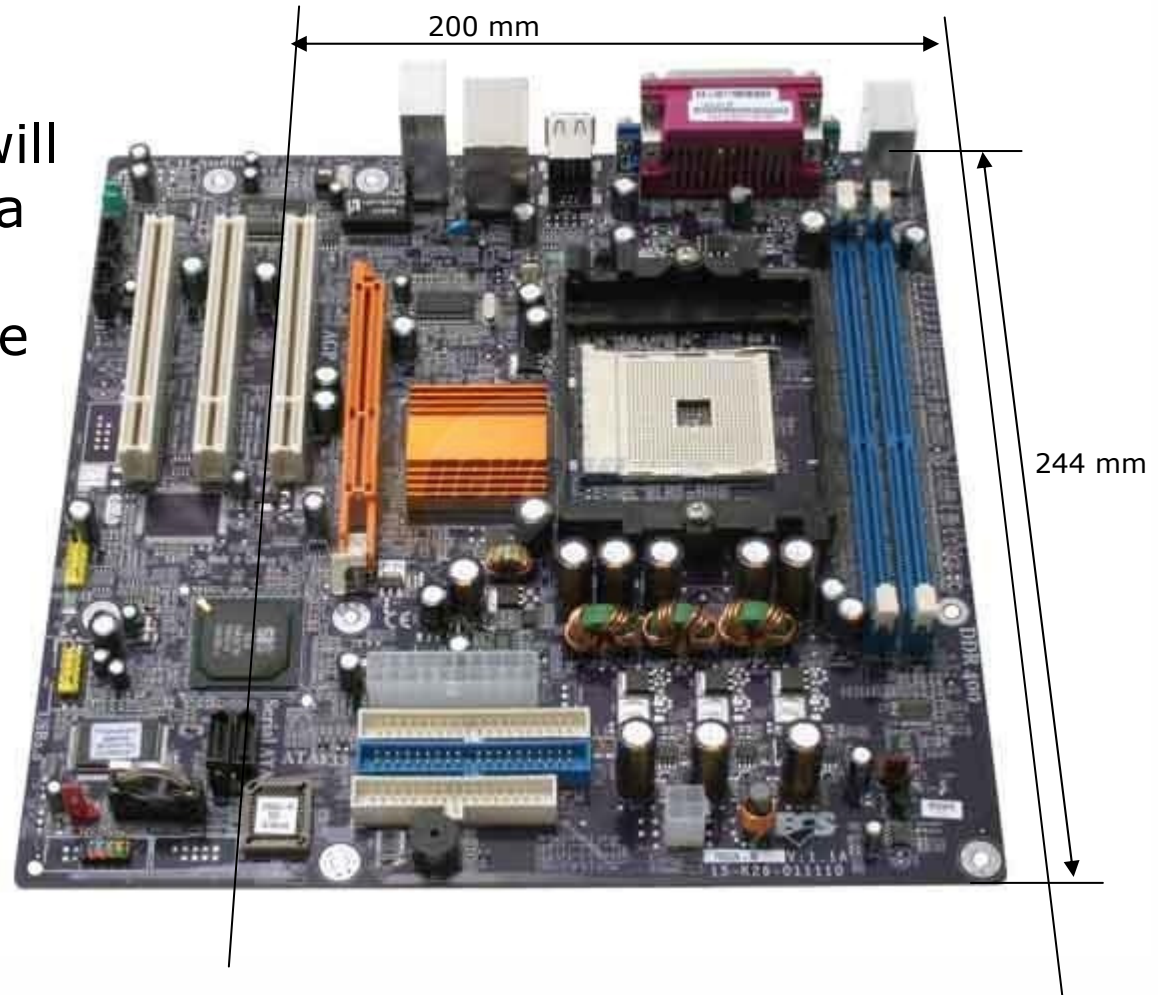
*\*Note: Venting and other system requirements not clearly shown – these are concept illustrations only*

**Because Desktop PCs Belong on the Desk, not the Floor**



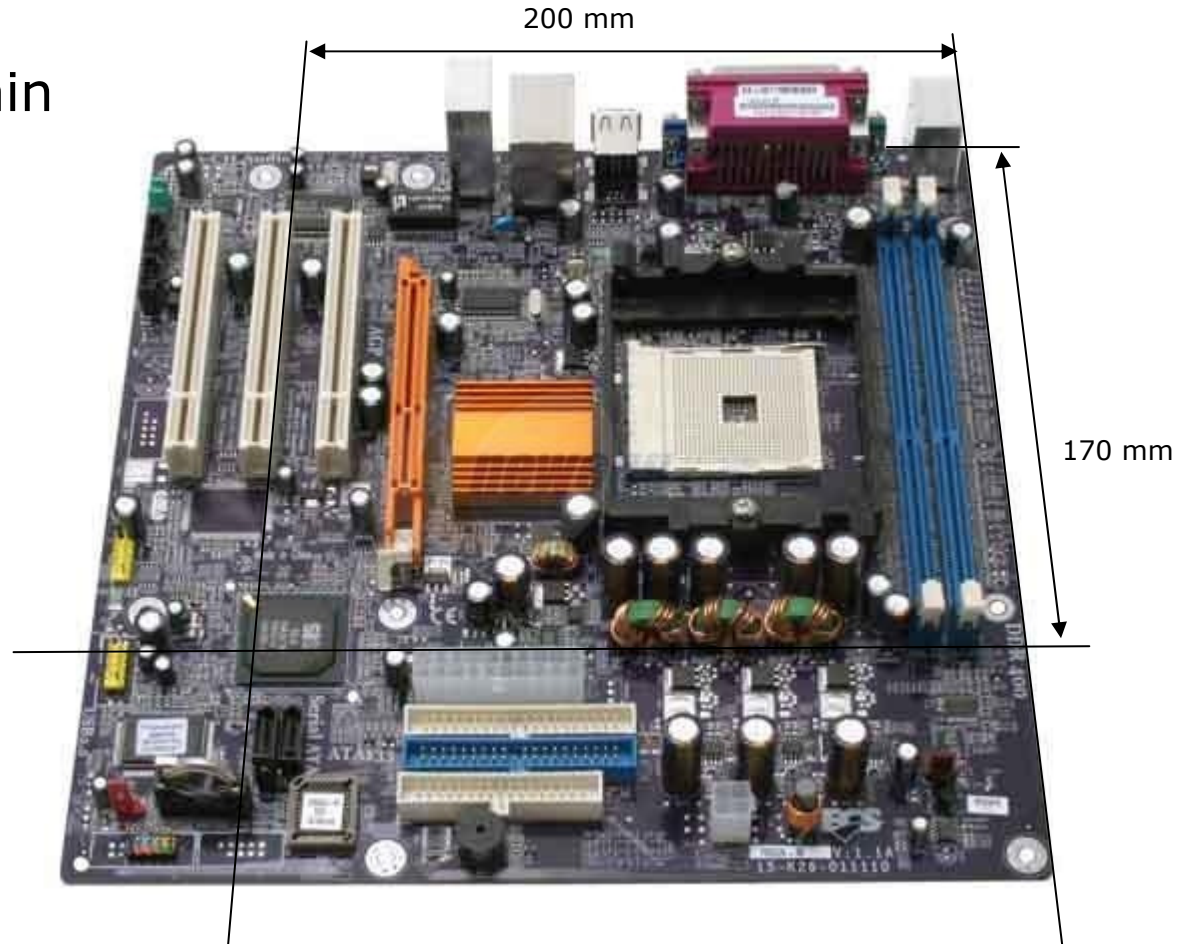
## Micro ATX → Full DTX Plans 4/Panel, (2 Slots)

- DTX motherboards will be designed to fit into a DTX and ATX Chassis
- Backward Compatible = Lower Cost



## ATX → Mini-DTX Plans 6/Panel, (2 Slots)

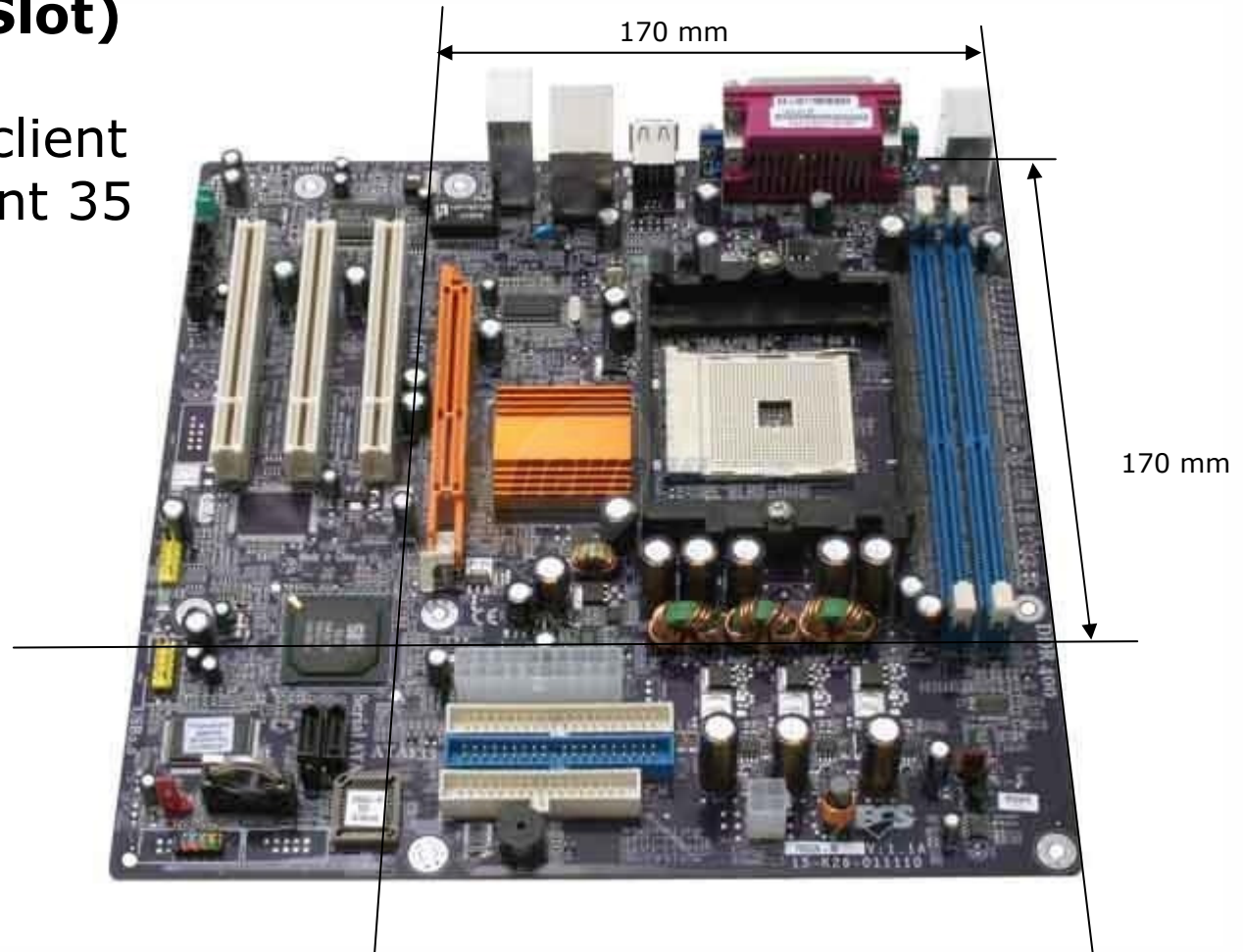
To be targeted at thin client or high-layer count 35 watt processor



**DTX will be Defined to Enable a Wide Range of Products**

## ATX → ITX (1 Slot)

Targeted at thin client  
or high-layer count 35  
watt processor



**DTX will be Designed to Create a Standard Chassis for ITX  
Motherboards**

## Trademark Attribution

**AMD, the AMD Arrow logo and combinations thereof are trademarks of Advanced Micro Devices, Inc. in the United States and/or other jurisdictions. PCIe is a licensed trademark of the PCI-SIG. Other names used in this presentation are for identification purposes only and may be trademarks of their respective owners.**

**©2007 Advanced Micro Devices, Inc. All rights reserved.**